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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,134	03/21/2001	Bernard Hendrik Reesink	VER-140XX	3016

207 7590 10/29/2002

WEINGARTEN, SCHURGIN, GAGNEBIN & LEOVICI LLP
TEN POST OFFICE SQUARE
BOSTON, MA 02109

EXAMINER

NORTON, NADINE GEORGIANNA

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 10/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/744,134	Applicant(s) REESINK ET AL.	
	Examiner Nadine Norton	Art Unit 1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>6 and 9</u> . | 6) <input type="checkbox"/> Other: |

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DETAILED ACTION

Withdrawal of Objection to Oath/Declaration

Applicants' newly submitted declaration overcomes the previous objection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Antos (4,036,743).

Applicants are claiming a process for the hydrogenation of a sulfur containing feedstock (less than 50ppm). The process comprises contacting the feed with a mixture of a precious metal catalyst, a metal oxide and a nickel catalyst as defined in claim 2.

The reference of Antos (4,036,743) discloses a catalyst suitable for hydrogenation. See column 3, lines 9-11. The catalyst comprises nickel (0.05 to 5%) on a carrier (i.e. support), a precious metal in the form of platinum (0.01 to 2 wt %) and a metal oxide in the form of bismuth

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oxide. See column 5, lines 1-5, column 7, lines 54-56, column 8, lines 24-40 and column 9, lines 50-55. Antos (4,036,743) teaches that the feed contains less than 1ppm sulfur. See column 16, lines 5-10. The reference discloses the treatment of a gasoline fraction (fraction = distillate). See column 4, lines 47-54.

The reference of Antos (4,036,743) succeeds in disclosing a catalyst composition with components corresponding to applicants' supported nickel component, supported precious metal, and metal oxide (i.e. barium oxide).

It is noted that Antos (4,036,743) does not disclose the combination of catalyst components as a "mixture".

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the composite catalyst of Antos (4,036,743) would similarly function to remove mercaptans because the composite catalyst contains the same catalytic components as applicants' mixture. The same catalytically active components on a single support would perform similarly to each catalytically active component on separate supports mixed together. For instance, a mixture of nickel on alumina and platinum on alumina would perform similarly to a combination of nickel and platinum on the same alumina support.

Claim Rejections - 35 USC § 103

Claims 1, 3-13 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Antos (4,036,743).

See teachings of Antos (4,036,743) above.

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A difference is noted between applicants' invention and the disclosure of Antos (4,036,743). It is noted that the reference of Antos (4,036,743) does not disclose initially treating the feed with a first precious metal catalyst or a precious metal/metal oxide catalyst.


The reference of Barre et al.(5,868,921) is cited to illustrate that conventional hydrotreating catalysts include noble metals such as platinum. See column 2, lines 27-30. Barre et al.((5,868,921). In addition, the hydrotreating bed of Barre et al.(5,868,921) includes a first bed including a noble metal (metallic) and a lower bed containing a VIB metal (oxidic). See column 2, lines 25-45 and column 4, lines 55-58.

Since Antos (4,036,743) teaches that the feed may be subjected to pretreatment including hydrotreating (column 14, lines 49-54), it would have been obvious to one of ordinary skill in the art at the time the invention was made to include an initial treatment of the Antos feed with a separate precious metal catalyst or precious metal/metal oxide in order to accomplish a hydrotreating pretreatment because Barre et al.(5,868,921) illustrates that such a precious metal/metal oxide containing catalyst is effective for hydrotreating.

Response to Arguments

Applicants' arguments filed 7-18-02 have been fully considered but they are not persuasive.

Applicants' arguments asserting the catalyst employed in applicants' invention is a mixture whereas the catalyst employed in the Antos process is a composite is addressed in the modified rejection above.



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Applicants' arguments against the combination of Antos and Barre are not persuasive because it is not required for the secondary reference of Barre to disclose nickel metal. Barre was relied on to show the conventionality of an initial noble metal treatment step. The secondary reference does not take away the nickel metal teaching of the primary reference. The combined teachings are considered to encompass applicants' initial noble metal contact followed by nickel metal contact.

Applicants' 132 declaration filed 7-18-02 in paper no.8 is not persuasive in overcoming the pending rejections because the declaration is not comparative to the closest prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nadine Norton whose telephone number is 703-305-2667. The examiner can normally be reached on Monday through Thursday from 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marian Knode can be reached on 703-308-4311. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0661.

N.N.

October 7, 2002

NADINE G. NORTON
PRIMARY EXAMINER

